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ABSTRACT

The document contains a descriptive outline of the various components of the Texas career education learning system. This includes: (1) a brief discussion on policy guidance; (2) an overview of career education from 1970-1975; (3) an outline of goals for public school education; (4) a 25-page document called "Basic Learner Outcomes for Career Education"; (5) an outline of the relationship of career education basic learner outcome categories and goals for public school education; (6) a discussion of a measurement and diagnostic system for career education; (7) a brief discussion of measurement instruments; (8) a sample test booklet which focuses on economic factors influencing career opportunity; (9) an outline of major processes involved in the development of a learning system for career education; (10) a matrix of learner outcomes; (11) sample matrices of specific learner outcomes; (12) a brief description of a catalog of learner activities; (13) a learning module format and instructions; and (14) four sample learning modules for Grades 3, 8, and 11. (EC)

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A CAREER EDUCATION LEARNING SYSTEM

DIVISION OF PROGRAM
PLANNING AND NEEDS ASSESSMENT
TEXAS EDUCATION AGENCY

MEASUREMENT, DIAGNOSTIC AND PRESCRIPTIVE COMPONENTS OF A CAREER EDUCATION LEARNING SYSTEM

Presented by

The Division of Program
Planning and Needs Assessment

Texas Education Agency
Austin, Texas

May 19, 1975

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The broad long-range aims for public education in Texas have been well-defined in the document, Goals for Public School Education in Texas, which was adopted by the State Board of Education in 1970 and revised in 1973. These goals provide the public education system in Texas with an overall sense of direction. According to the established goals, the State Board of Education is encouraging the development of a system of public education in which individual learners will have the opportunity to develop their personal knowledge and skills to maximum capacity and to be economically and occupationally competent.

It is believed that career education can help bring about the student development and school system organization and accountability that is called for in these goals. That is the reason that career education was selected by the State Board in May 1973 as one of the three priority areas of concern for the Texas Education Agency.*

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*The Tentative State Plan for Career Education in Texas, Texas Education Agency, Austin, Texas, 1974-75.

CAREER EDUCATION

TEXAS OVERVIEW

1970

- The State Board of Education adopted the Goals for Public School Education in Texas.
- The State Board of Education approved 10 pilot occupational orientation projects.
- The State Board of Education approved the redirection of the educational system in Texas to incorporate the concepts of career education.

1971

- The State Advisory Committee on Career Education was established.
- An Agency-wide task force on career education was appointed to develop a framework bulletin for career education.

1972

- A Tentative Framework for Developing Comprehensive K-12 Career Education was disseminated to local school districts.
- The Texas Education Agency selected a Coordinator of Career Education.
- An Agency-wide Steering Committee for the Assessment of Career Education was established.

1973

- The State Board of Education established Career Education as a top priority for the Texas Education Agency.
- The Division of Occupational Education and Technology, the Division of Regional Education Services, and the Division of Special Projects in Career Education was established.
- Governor Dolph Briscoe declared the first week in September as Career Education Week.
- The Texas Education Agency adopted and published 177 Basic Learner Outcomes as the basis for career education program development.
- The Texas Education Agency encouraged the establishment of career education coordinators in each of the Education Service Centers.

1974

- Funding for career education was continued at a high level by various divisions within the Texas Education Agency.

- The Texas Education Agency approved funding to develop a measurement/diagnostic system appropriate for the 177 Basic Learner Outcomes adopted in 1973.

1975

- A State Plan for Career Education was presented to the State Board of Education.

- Numerous exemplary career education programs emerged in public schools.

- State-wide workshops for further career education implementation were scheduled.

GOALS FOR PUBLIC SCHOOL EDUCATION IN TEXAS

I. STUDENT DEVELOPMENT

The public schools should help each student to develop personal knowledge, skills, and competence to maximum capacity, and to learn behavior patterns which will make each a responsible member of society. In terms of their individual ability, all students should achieve:

A. Intellectual Discipline

1. Knowledge of the traditionally accepted fundamentals, such as reading, writing, and arithmetic in the early elementary grades, accompanied by studies in higher mathematics, science, history, English and other languages, as they progress through the upper grades. These should be accompanied by a wide variety of optional courses.
2. Skill in the logical processes of search, analysis, evaluation, and problem solving.
3. Competence and motivation for continuing self-evaluation, self-instruction, and adaptation to a changing environment.

B. Economic and Occupational Competence

1. Knowledge of the fundamental economic structure and processes of the American system and of the opportunities for individual participation and success in the system.
2. Occupational skills prerequisite to enter and advance in the economic system and/or academic preparation for acquisition of technical or professional skills through post-high school training.
3. Competence in the application of economic knowledge to practical economic functions such as planning and budgeting for the investment of personal income, calculating tax obligations, financing major purchases and obtaining desirable employment.

C. Citizenship and Political Understanding and Competence

1. Knowledge about comparative political systems with emphasis on democratic institutions, the American heritage, and the responsibilities and privileges of citizenship.
2. Skill for participating in the processes of public and private political organizations and for influencing decisions made by such organizations.
3. Competence in judging the merits of competing political ideologies and candidates for political position.

D. Physical and Environmental Health, and Ecological Balance

1. Knowledge about the requirements of personal hygiene, nutritional consumption, and physical exercise essential to the maintenance of personal health. Knowledge about the dangers to health from addiction to harmful practices or consumption of harmful materials.
2. Skill in sports and other forms of recreation which will permit life-long enjoyment of physical exercise.
3. Competence in recognizing and preventing environmental, ecological, and health problems.

E. Appreciation of Culture, Language, and Life Style Diversities and Their Corresponding Aesthetic Values

1. Knowledge of the art, music, literature, drama, and other culturally related forms of various culture groups and their contributions.
2. Knowledge and competence in at least one of the major languages of the state other than English and an understanding of bilingualism.

F. Competence in Personal and Social Relations

1. Knowledge about basic psychological, sociological, and cultural factors affecting human behavior.
2. Skill in interpersonal and group relations, and in formation of ethical and moral standards of behavior.
3. Competence for adjusting to changes in personal status and social patterns.

G. Use of Leisure Time

Competence and skill in creative and responsible use of leisure time.

II. ORGANIZATIONAL EFFICIENCY

The Public School System of Texas should be organized and operated so that the public, faculty, and students will accept and support its objectives and processes.

A. The learning process should take into consideration the personal goals of every student and should be designed so that each can achieve the educational standards of the system and be encouraged to remain in school until ready for a post-high school career.

B. Professional faculty members should be consulted in the decision-making processes for implementing the educational goals of the system and determining the environmental conditions in which they work.

C. The personnel program of recognition and rewards should be designed to attract and retain highly competent people.

D. The educational system should be organized and conducted so as to achieve maximum cost-benefit results from efficiencies in process and economies of scale within size limitations which will make units of the system responsive and accountable to parents and citizens.

III. ACCOUNTABILITY

A program of continuing planning and evaluation should be established for measuring the performance of the public school system in terms of the competence of its staff, the performance of its pupils, and the efficiency of its structure and processes.

Spring 1973

Texas Education Agency

Adopted October 3, 1970
Revised April 14, 1973
The State Board of Education

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BASIC LEARNER OUTCOMES FOR CAREER EDUCATION

TEXAS EDUCATION AGENCY
AUSTIN, TEXAS
1973

Developed by - -

Division of Program Planning
and Needs Assessment
Texas Education Agency

Compiled under the direction of - -

Assessment of Career Education
Steering Committee
Texas Education Agency

& Partners in Career Education
Arlington, Texas

November 1973

Introduction

In 1972 the Texas Education Agency selected career education as one of the nine statewide priority areas of concern. In April 1973 the Agency reaffirmed this position of importance for career education by selecting it as one of three top priorities for special attention.

A steering committee for the Assessment of Career Education (ACE) was appointed by the Texas Education Agency and given the responsibility of planning and conducting a statewide assessment of Texas students in the area of career education. The ACE Steering Committee, with representatives from program development, school administration, guidance, vocational education, special education, career education, and planning, conducted two activities during the 1972-73 school year. This committee:

1. Investigated available tests for measuring student performance in the area of career education and pilot tested two of these.

2. Conducted a survey of students, parents, educators, and representatives from business and industry to determine what Texans felt were the basic components for student development in career education.

This publication reports the results of the second activity.

As the ACE Steering Committee proceeded to plan a statewide assessment of career education, it became evident that a well-defined picture of what should be accomplished in career education was not available. The statewide survey was conducted to better define career education in terms of the attitudes, knowledge, and skills required of 17-year-old students. Since career education is not viewed as a separate program or course in the Texas schools, these student characteristics should provide direction to future curriculum planning and development efforts at the local, regional, and state levels.

About the Study. . .

In cooperation with a special project called, "Partners in Career Education" (sponsored by the Dallas and Fort Worth school districts and education service centers in regions X and XI), the ACE Steering Committee conducted a statewide survey based on the question, "What should an individual look like when he or she is 17 years old and has become adequately developed in terms of career education?". The project staff reviewed the curriculum literature on career education, visited career education projects both in Texas and other states, and held work-group conferences with students, parents, educators, and representatives from business and industry to compile a list of almost 300 student characteristics that could be developed through career education. These student behaviors or characteristics were called "student outcomes" and were submitted to students, parents, educators, business/industry representatives, and others for review. Approximately 6,000 individuals participated in the study and were asked to rate these student outcomes as either basic for all 17-year-olds, desirable for some 17-year-olds, or inappropriate for development in the schools.

The respondents to this survey were asked some additional questions about themselves in order that the results could be analyzed by ethnicity, sex, size of community, income, age, etc.

For a student outcome to be accepted as "basic" in this survey, a majority of the persons must have rated it as basic and no identifiable population (as determined by ethnicity, sex, size of community, income, age, etc.) could judge an outcome to have a mean score below 1.5 on the following 2 point scale:

2.0 = basic
1.0 = desirable
0 = inappropriate

From the 300 outcomes submitted to Texans, 177 were identified as basic. The remainder of the outcomes included in the validation survey were rated as desirable. None of the learner outcomes was found to be inappropriate since none of them received a mean score below 0.5.

Results of the Study. . .

The "basic" outcomes to be achieved with all Texas students have been sorted into nine categories to assist in communication. Generally, these nine categories may be defined as follows:

Category	Outcomes were included in this category if they dealt with
I - Career Planning and Decision Making	Goal setting; understanding the importance of a planning process; assistance in decision making; career choices
II - Career Information	Identification of sources of occupational information; obtaining information about careers

III -	Job Acquisition and Retention	Skills that one should have to locate and interview for a specific job; skills and understandings that one should have to remain employed
IV -	Attitudes and Appreciation for Career Success	Attitudes toward work: feelings about task accomplishment
V -	Skills in Human Relationships for Careers	Interpersonal relationships; group dynamics; attitudes toward the possession of human relationship skills
VI -	Self-investigation and Evaluation for Career Success	Examination of self in relation to careers; assessment of self concept; appraisal of interests and capabilities
VII -	Personal/Work/ Societal Responsibilities	Citizenship; relationship with and responsibilities to fellow men, job, etc.
VIII-	Economic Factors Influencing Career Opportunity	Understanding how various economic conditions affect a person; how a person interacts in the economy
IX -	Education/Career Opportunity Relationships	Understanding the relationship of education (formal or informal) to career opportunities; understanding the relationship of education or training to specific job requirements; the student's attitude toward education or learning and career opportunities

The following pages of this publication list each of the 177 basic outcomes under one of these nine categories. For additional information about these statements, the survey, or possible application/utilization of these results, contact:

Division of Program Planning
and Needs Assessment
Texas Education Agency
201 East Eleventh Street
Austin, Texas 78701

Basic Learner Outcomes For Career Education

1. Career Planning and Decision Making

    1. The student should be able to define the term "goal".

    2. The student should be able to apply decision-making steps to solving personal problems and career choice.

    3. The student should understand the necessity for having a satisfying job when setting his career goal.

    4. The student should understand that he will work better when he accurately matches his personal goals with his career choice.

    5. The student should be able to identify career directions which are available to him, such as:

        - He can prepare for immediate employment after secondary school.
        - He can enter a trade or technical school for advanced skill training.
        - He can enter a college or university for specialized training in an area requiring a degree to begin his career.
        - He can follow other directions.

    6. The student should be able to identify sources which will help him in forecasting the demand for his career choice on the community, state and national level.

    7. The student should be able to use his own resourcefulness to solve personal problems such as: He wants to go to college, but there is not enough money for tuition. He could look for a job, put in a request for financial aid, or apply for a loan.

    8. The student should realize he will benefit from talking to parents, friends, and neighbors about jobs.

9. The student should identify examples of the necessity for putting first things first, such as if he chooses to buy a new car before he has enough money, he may lose the car, damage his credit and make it difficult for himself to buy another car.

10. The student should realize that he should be able to request assistance from teachers, counselors, and/or the librarian, regarding how to find and use sources of information such as: college catalogs, occupation references and government publications.

11. The student should understand that school counselors should help him locate sources of financial assistance and career information and help resolve conflicts in his career goals.

12. The student should understand that many factors determine lifestyle, for example: income, culture, value system, and career.

II. Career and Occupational Information

1. The student should realize the benefit of talking with qualified people working in areas of interest to him about work environment, necessary training, personal fulfillment, salaries, advancement opportunities, how they become that kind of worker and the problems encountered in reaching that goal (to include cultural obstacles, if any).

2. The student should understand the necessity of seeking out knowledge about the supply of and demand for occupations before making a career choice, for example: A student would not want to enter an occupational field that does not need workers, and where there are many workers unemployed in this field currently.

3. The student should be able to describe worker qualifications for specific jobs which are related to his particular career direction, such as, sales occupations - auto salesman; high school diploma, generally accepted minimum age - 21, tactful, well-groomed, able to express himself well, initiative, aggresiveness, self-confidence and determination to get through slow sales periods . . . . .

4. The student should be able to identify job categories in which he has some interest, and list under each category chosen: various job titles, the educational requirements, and the employment outlook for each job title.

5. The student should be able to identify and locate information about jobs, such as: availability, pay, location and openings which will aid him in making a career choice.

6. The student should recognize that many places of employment have worker benefits such as retirement plans, hospitalization, life insurance and incentive programs which are profitable only if the employee remains with the company for a period of years.

7. The student should understand how job characteristics, such as: hours, environment, co-workers, extra benefits, location, possibility for advancement and salary will play a major role in his selection of a career according to his individual needs and interests.

8. The student should be able to understand the necessity for time clocks at many places of employment and how a time clock is used.

9. Using his own career choice, the student should be able to describe: (1) his entry level skills and/or qualifications required and (2) qualifications and/or job experience required to advance to the next level.

10. The student should be aware of various jobs he can have with the same skills.

11. The student should be able to find and talk to people who are working in his career field.

12. The student should know the opportunities for advancement in his career area.

III. Job Acquisition and Retention

1. Given a sample employment application, the student should be able to neatly and accurately fill in all blanks, indicating "n/a" for those statements which do not apply to him.

2. The student should be able to demonstrate that he possesses appropriate skills, such as:

   - He should have his social security number, and names, addresses and phone numbers of references readily available.
   - He should indicate types of jobs preferred and expectations of the job (hours, pay and experience to be gained)
   - He should answer questions promptly and as accurately as possible.
   - He should be appropriately groomed and dressed.
   - He should use acceptable manners and good posture.
   - He should ask questions regarding fringe benefits, advancement opportunities, training and union membership.
   - He should show enthusiasm.

3. The student should be able to identify acceptable and unacceptable interview behaviors.

4. The student should be able to demonstrate a knowledge of how to use a telephone and phone book to get information regarding the public transportation system.

5. Given information regarding the location of a place of work in relationship to the location of home, time for reporting to work, the nonavailability of a cafeteria or personal parking in the work place, and the availability of two ten-minute coffee breaks during the work day; the student will be able to determine how long it will take him to get to work (private and/or public transportation), what time he must arise in the morning to get to work on time, the most appropriate times to take care of his personal toilet needs, where he will park his automobile if he has one and what he will do about lunch.

6. Given a hypothetical situation, the student should be able to determine how much it will cost him to work, for example:

   - Situation: He has been offered a job paying $80.00 per week net. How much of his salary will be used for work costs?
   - Student response: It costs 80¢ a day to ride the bus; $3.00 per week for foods which can be used for preparing sack lunches; $18.00 per week for child-care and $2.50 per week for coffee. The total per week would be approximately $27.50. However, this does not include $6.00 per month for union dues and addi

     clothing.

7. The student should be able to give examples of ways in which he might present himself in order to improve his chances for success on the job, such as:

   - If one consistently produces quality work and gets along well with other employees, his chance of success will be greater.

8. The student should be able to identify basic skills he possesses which can become salable in the job market and various types of part-time employment he can seek with each skill.

9. The student should be able to identify examples of work habits and attitudes necessary for successful entry into his chosen occupation, such as bank teller - punctuality, mathematical accuracy, appropriate dress, pleasant personality, and helpfulness to others.

10. The student should understand that in order to become a manager or supervisor, it may be necessary for him to start at a lower level.

IV. Attitudes and Appreciation for Career Success.

1. The student should be concerned with the concept of quality in relation to a task or job.

2. The student should possess a positive attitude toward the quality of his work in a given area, displaying the awareness of an enriched self-concept due to this quality, for example: A student might say, "Because I do "X" well, it makes me more eager to try "Y", as I know I can do some things well."

3. The student should recognize that attitudes toward work are formed from various sources, for example: age, education, sex, family socio-economic level and background, work experience, predominant attitude held by his culture and peer group attitude.

4. The student should want to work for personal satisfaction and independence.

5. The student should understand the importance of staying with a task until it is completed.

6. The student should understand that it is satisfying to know how a specific task relates to the finished product.

7. The student should display an awareness of man's need to experience personal satisfaction through his own accomplishments, recognizing that satisfaction is, or can be, different for different individuals.

8. The student should display pride in his work and work products.

9. The student should be able to give an example of when personal satisfaction comes from doing a job well rather than from a supervisor's approval.

10. The student should understand the importance of being consistent and persistent.

11. The student should realize that work has dignity.

12. The student should be able to exhibit patience when approaching a new learning situation.

13. The student should communicate an understanding of the need to talk on some occasions and the need to listen in other situations.

14. The student should be active in planning his career development and should seek help when he feels the need for advice, assistance and/or direction.

15. The student should be able to respect authority and give an example of the necessity for this attitude on the job.

16. The student should be able to identify different attitudes toward work, such as: Some individuals work only for the money; some people find their work absorbing and rewarding.

17. The student should have a positive attitude toward putting in a day's work for a day's pay.

18. The student should demonstrate his development of positive attitudes toward specific occupations, understanding their usefulness, and dignity within society.

19. The student should understand the need for an employer to be loyal to his employees.

20. The student should display a positive attitude toward employees showing loyalty to employers.

21. The student should understand that as an employee he should comply with reasonable decisions made by other persons with legitimate authority (supervisor, boss, etc.).

22. The student should understand that as an employee he should be able to work well with others in reaching common goals of the company.

23. The student should recognize that there are times when a great deal of work will have to be done in a short period of time so everyone will have to work at his full capacity. Anyone who can not produce under pressure will be of little value to his employer.

24. Given a list of appropriate and inappropriate behaviors and attitudes, the student should be able to indicate which items are appropriate or inappropriate for the majority of occupations, such as: laziness, flexibility, punctuality, extreme dress and inability to accept authority.

25. The student should understand that he is not the only one capable of doing a particular job right. Otherwise, he becomes difficult to work with and may be replaced.

V. Skills in Human Relationships for Careers

1. The student should understand the benefits of attempting to solve problems on the job in a tactful manner, for example:

    . A fellow worker constantly wants to gossip with you about other co-workers. You might tell him that it is the supervisor's job to ensure that workers conduct themselves appropriately on the job, or you might find something positive to say about a worker whenever a negative statement is made.

2. The student should understand how being helpful on the job can be beneficial or can have a negative effect, for example, a friendly offer of help by a co-worker can have a positive effect. Helpfulness may have a negative effect when it is done out of a need to dominate another person or from an inability to accept the fact that things might be done in different ways.

3. In a problem work situation the student should be able to identify the principal parties involved and indicate suggestions for solving the problem, for example: consistently tardy employee (problem) supervisor and employee (principals), supervisor might call employee in for a personal conference, and supervisor might insist that employee cease being tardy or be fired in the near future.

4. The student should be able to recognize the degree to which he is able to interact with other people by working as a team member.

5. The student should be able to understand the difference between the relationship of a worker to a superior, and of a worker to a peer, for example: teacher/principal - relates to principal as an authority figure (boss), relates to principal as solver of difficult problems, teacher/other teachers - relates as a friend and confidant and as a competitor.

6. The student should be able to understand why it is necessary to exhibit "good" manners both on the job and in social relationships.

7. The student should understand that as an employee he should not make unnecessary criticisms of supervisors or others in the presence of co-workers.

8. The student should display a positive attitude toward all individuals working and enjoying the fruits of their labor regardless of race, religion, sex, ethnic, or socio-economic origin.

9. The student should display respect for people of different races or ethnic origins.

10. The student should be able to understand how attitudes based upon prejudice affect behavior of other individuals, for example: if he feels all blacks are inferior, blacks may sense this and become hostile toward him.

11. The student should be able to understand factors which contribute to prejudice such as: misinformation, parental and/or peer attitudes, isolated experiences and personal insecurity.

12. The student should be able to give examples of the advantages and disadvantages of being a leader and/or follower.

13. The student should recognize that there are disadvantages to being a leader, such as:

    . One must accept the consequences for bad judgement.
    . Many other people depend on you.
    . It usually takes others to aid in implementation of innovations.

14. The student should be able to give examples of appropriate occasions where transfer from the role of leader to the role of follower is beneficial, such as:

    . When involved in a team effort where the expertise is varied, it is necessary to become a leader when your expertise is needed, and to follow the direction of other leaders when their expertise is the area of priority.
    . In the home as a teenager, one often follows the leadership of parents; however, if there is no parent present, one often assumes the leadership role in directing peer behavior in an appropriate manner. When the mother is ill, the oldest child often assumes the role of a leader in getting the younger children fed and off to school.

15. The student should understand that there are other individuals with whom he as a worker must interact.

16. The student should understand the benefits of and necessity for being sensitive to others.

17. The student should be able to indicate why he feels that a pleasing personality is necessary on the job and in social situations.

18. The student should be able to understand that there will be many instances in his life when he will have to make compromises.

19. The student should possess the ability to meet people, make appropriate introductions and chat with them for short periods of time.

20. The student should understand the importance of sharing his time and talents with others.

21. The student should know when it is acceptable or not acceptable to use what might be considered profane language.

22. The learner should be able to understand that some means of communication work more effectively in some situations than others.

23. The student should understand that chronic complainers are irritating to their fellow workers.

24. The student should be willing to communicate, project his thoughts and/or express his feelings.

25. The student should be able to identify traits which he feels are essential to having a pleasing personality.

VI. Self-investigation and Evaluation for Career Success

1. The student should know that he should be able to seek counseling from school, public and/or private counselors on problems about school, home, career choice, career requirements, life styles and/or getting along with other people.

2. The student should be able to identify his capabilities which are related to his career direction, for example: better at working with his hands or likes working with his mind.

3. The student should be able to identify his interests which are related to his career direction, for example: likes working outdoors or indoors, likes working with groups or alone.

4. The student should be able to understand the factors which will have some influence on his career options, for example: personal characteristics, training requirements, finances, parental attitudes, cultural obstacles (racism, sex discrimation), unreasonable aspirations in terms of abilities, possibility of becoming locked into narrow fields of specialization and/or lack of vital information.

5. The student should understand the need for recognizing his own faults or limitations.

6. The student should be able to list academic and/or occupational courses he has successfully completed which have helped him prepare for additional training or immediate employment in a career field of his choice.

7. The student should understand that he has certain physical, social, and mental characteristics which are different from others'.

8. The student should understand that one's view of life comes from his personal value system.

9. The student should be able to identify the skills he has which are necessary for success in his chosen career area.

10. The student should understand that how he views himself, or his self-concept, influences his ability to succeed.

11. The student should understand that having a good self-concept gives him a greater ability to try "new" things, meet and get along with others and develop a more secure and stable view of the future.

12. The student should understand that he applies or rejects values into his personal philosophy by questioning his likes or dislikes when he meets new ideas, tries the new ideas on for size, and then applies them to his value system or discards them.

13. The student should be able to identify origins of factors which influence or govern his social development, such as: family, church, legislation and peer groups.

14. The student should be able to indicate examples of individual differences, such as: Some people are more athletic than others; some people are better at manual tasks than others; some people are better at routine-type jobs than others and some people are more artistic than others.

15. The student should know whether or not he is usually persistent and consistent.

16. The student should understand that there are many situations in which he might find it necessary to make adjustments.

17. The student should be able to understand the relationship of satisfaction to successful achievement.

VII. Personal/Work/Societal Responsibilities

1. The student should be able to give examples of how the quality of his work affects his vocational or professional status, for example: A dentist may not have many patients if his work is of a poor quality. A mechanic may not have much business if his customers are not satisfied with the quality of his work.

2. The student should demonstrate appropriate behavior for working with or without supervision and for working independently or with others.

3. The student should be able to discuss what he feels might be the consequences to others and himself if he does not practice good work habits.

4. The student should understand the consequences of not working.

5. The student should understand his rights granted by our social and political institutions concerning such matters as property and freedom, for example:

   . Citizens have various rights guaranteed by the constitution and may exercise these rights as long as they don't infringe on the rights of others in the process. One has the freedom of speech but not to slander or defame the character of other persons.
   . We have the freedom of movement in this country but not to trespass on the property of others.
   . There is a right of self-defense but not the right of murder or assault.

6. The student should know the laws that protect the rights of workers, children and others in the work world.

7. The student should be able to understand that there are members of our society who are unable to provide incomes for themselves and that our society has taken responsibility for supporting certain people, such as orphans and the aged.

8. The student should understand that services such as education, police protection, and highways are provided by city, county, state and/or federal governments and paid for with tax money.

9. The student should be able to give examples of irresponsible behavior on his part and indicate: (1) what the consequences were and (2) what he might have done in the situation to exhibit responsible behavior.

10. The student should understand the consequences for non-compliance to modes of behavior determined by the society, for example:

    - Not paying federal income tax - imprisonment
    - Not doing required school work - receive poor grades
    - Not respecting others' property - be severely reprimanded and/or ostracized or possibly sued or put in jail
    - Disregarding the safety of others - injure others and/or self
    - Not possessing driver's license when driving - incur fine and possibly imprisonment

11. The student should be able to identify responsibilities which he would have to himself and responsibilities he would have to fellow workers when performing a task or job.

12. The student should be able to give several examples of good work habits, such as punctuality and planning one's work.

13. The student should display a positive attitude or respect toward his country and participation in the American political and economic systems.

14. The student should understand that criticism can be constructive when it promotes reform through correction of social, political, and/or economic ills.

15. The student should realize that nationalism or loyalty to one's country can contribute to progress and growth of the people and the system.

16. The student should understand that participation through voting, becoming informed and participating in reform "causes" can make the system more responsive to its populace.

17. The student should understand that non-participation and/or destructive acts can threaten the rights of others.

18. The student should understand current problems.

19. The student should want to work for the betterment and fulfillment of the goals of society.

20. The student should be able to identify good safety habits which would apply on the job as well as at home.

21. The student should exhibit concern for the proper care and conservative use of equipment and materials on the job.

22. The student should have a positive attitude towards conservation of environmental resources and toward conservation of human resources.

23. The student should be able to understand the reasons for maintaining good health, for example: One cannot put forth his best effort when one does not feel physically fit.

24. The student should be able to discuss various aspects of drug abuse knowledgeably.

25. The student should understand the merit of good grooming and be able to identify examples of good grooming habits.

VIII. Economic Factors Influencing Career Opportunity

1. The student should understand that the benefits of technology are the production of new, more and better goods and services.

2. The student should realize that changes in technology will affect his work and life style.

3. The student should understand that technology results in greater, faster and better production.

4. The student should be able to understand that technology has done away with jobs in the past and will do away with jobs in the future, making it necessary for the labor force to retrain.

5. The student should understand that technology can create the necessity for retraining in present jobs.

6. The student should be able to understand the necessity for money as a medium of exchange in our economy.

7. The student should understand that money is a medium of exchange.

8. The student should understand what interest is and why it is a necessary charge for using other people's money.

9. The student should understand that society finds it convenient to use money as a yardstick for measuring the relative worth of different goods and resources.

10. The student should understand that wages are what someone is paid for his time and effort.

11. The student should be able to understand the differences between gross income, net income, and taxes.

- Gross Income - the total amount of money earned for performing a task or service before taxes
- Net Income - the income received for work excluding the amount paid out for taxes and fringe benefits
- Taxes - a compulsory payment of a percentage of income for the support of the government

12. The student should understand that price is the amount that the producer will accept in exchange for goods or services.

13. The student should understand that wages and prices are tied closely together and that as one goes up, usually the other will follow.

14. The student should be able to understand that higher wages sometimes lead to higher prices and higher wages affect his personal economy, for example: Auto workers getting a raise may result in higher prices for cars.

15. The student should understand that decisions of buyers and sellers determine the prices of resources and materials.

16. The student should understand that it takes resources such as labor and/or materials to produce goods and services.

17. The student should realize that there are many factors that affect the supply or items of services for sale, such as: labor and material resources, prices of related goods and technology.

18. The student should understand the need for not buying items which are priced too high or are of poor quality so that the producers of overpriced or poor quality goods will know that people do not want them.

19. The student should understand that the prices of products are determined by matching the amount supplied with the amount demanded.

20. The student should understand that if he spends time or money on one item or thing, he gives up doing or buying something else with his time or money, for example: If a student received $1.00 for his weekly allowance he could possibly go to a movie, treat himself to a hamburger and a drink, or save his dollar. If he chooses one of the things (saving the $1.00) he must give up the other two.

21. The student should understand income and expenditures in managing a household budget.

22. The student should identify various reasons for using a bank.

23. The student should understand the importance of saving money.

24. The student should be able to identify a variety of possible deductions which could be taken out of his gross wages, such as: social security, health or life insurance payments and union or professional dues.

25. The learner should be able to define the word "savings".

26. The student should understand the principle of scarcity, that is, that there are limitations on the amount of economic goods, including raw products and finished goods, which are available at any given time.

27. The student should understand the concept of consumer influence on what and how many goods and services are produced, for example: if people do not buy meat, ranchers will not have an income to buy the things needed to raise cattle, and they will not be able to buy their own food or pay their rent.

28. The student should understand the differences between someone who produces goods and someone who provides services to others, such as: goods - dressmaker, tractor manufacturer, farmer, housing contractor, can manufacturer; services - barber, mechanic, minister, dentist and television repairman.

29. The student should understand that when people do separate and different tasks they create more dependence in the society, for example:

    . One is a good shoemaker, another builds houses well and another is a good farmer; they will have more and better items by exchanging rather than trying to do everything themselves.

30. The student should understand that specialization of labor allows each man to work at what he does well.

31. The student should understand that we must depend on other people, businesses and communities for our basic needs, such as food, shelter, health care, and education.

32. The student should be able to identify basic areas of employment provided by our economic system, for example: large business concerns, small business concerns, self-employment, and federal, state, or local government jobs.

33. The student should be able to identify the goals of the American economic system, for example: freedom of choice and equality of opportunity.

IX. Education/Career Opportunity Relationships

1. The learner should be able to give examples of how the understanding of specific knowledge is a means of achieving a particular career goal, such as: an accountant needs an understanding of mathematics; a doctor needs an understanding of anatomy and chemistry.

2. The student should be able to identify learning experiences in school which have improved his ability to follow a particular career direction and/or enable him to make necessary career adjustments.

3. The student should be able to identify learning experiences outside of school which he feels are or were important to his choice of a career direction.

4. The student should be able to identify courses which are available in school and offer specialized training programs for full-time employment.

5. The student should have a positive attitude toward the importance of reading at the minimum level, such as traffic signs and newspapers.

6. The student should try to improve his minimum reading skills to a level matching his potential.

7. The student should be able to add, subtract, multiply, divide, and compute simple percentages to calculate change, wages, some taxes and handle a checkbook.

8. The student should demonstrate skills, such as: reading a thermometer, following directions in recipes, reading dials on an automobile dash, using simple gardening tools, running household appliances, setting dials on television sets, using rulers and tape measures.

9. The student should be willing to ask questions when he needs information or when he does not understand.

10. The student should be willing to learn new concepts and tasks.

11. The student should understand the need for good grammar and spelling in order to communicate with others.

12. The student should be able to write or print legibly a paragraph constructed in simple sentence form on a topic of his choice, using accurately spelled words.

13. The student should understand that writing is a communication skill which can reach a large population and has a great degree of permanence.

14. The student should understand that speaking is a skill which allows greater expression of emotion by tone and emphasis on words.

15. The student should understand that by listening and reading he can be exposed to and/or absorb the thoughts and knowledge of others

16. The student should understand that listening is an important way to learn.

17. The student should understand that pictures, charts, graphs, and movies are effective means of communicating.

18. The student should be able to discuss the relationship between daily physical activity and physical fitness.

RELATIONSHIP OF
CAREER EDUCATION BASIC LEARNER
OUTCOME CATEGORIES
AND
GOALS FOR PUBLIC SCHOOL EDUCATION IN TEXAS

Category	Outcomes were included in this category if they dealt with	Sub-goals from the Goals for Public School Education
I. CAREER PLANNING AND DECISION MAKING	Goal setting; understanding the importance of a planning process; assistance in decision making; career choice	A-2, B-1, B-2, F-3,
II. CAREER INFORMATION	Identification of sources of occupational information; obtaining information about careers	A-2, A-3, B-1, B-3,
III. JOB ACQUISITION AND RETENTION	Skills that one should have to locate and interview for a specific job; skills and understandings that one should have to remain employed	B-2,
IV. ATTITUDES AND APPRECIATION FOR CAREER SUCCESS	Attitudes toward work; feelings about task accomplishment	A-1, A-2, A-3, B-1, B-2, F-1, F-2,
V. SKILLS IN HUMAN RELATIONSHIPS FOR CAREERS	Interpersonal relationships; group dynamics; attitudes toward the possession of human relationship skills	A-1, A-3, B-1, B-2, C-1, F-2,

Category	Outcomes were included in this category if they dealt with	Sub-goals from the Goals for Public School Education
VI. SELF-INVESTIGATION AND EVALUATION FOR CAREER SUCCESS	Examination of self in relation to careers; assessment of self concept; appraisal of interests and capabilities	A-1, A-2, A-3, B-2, C-1, F-2,
VII. PERSONAL/WORK/ SOCIETAL RESPONSIBILITIES	Citizenship; relationship with responsibilities to fellow men, job, etc.	A-3, B-1, B-2, B-3, C-1, D-1, F-2,
VIII. ECONOMIC FACTORS INFLUENCE CAREER OPPORTUNITY	Understanding how various economic conditions affect a person; how a person interacts in the economy	B-1, B-3,
IX. EDUCATION/CAREER OPPORTUNITY RELATIONSHIPS	Understanding the relationship of education (formal or informal) to career opportunities; understanding the relationship of education or training to specific job requirements; the student's attitude toward education or learning and career opportunities	A-1, A-3, B-2, D-1,

A MEASUREMENT AND DIAGNOSTIC SYSTEM FOR CAREER EDUCATION IN TEXAS - WHAT IS IT ABOUT?

The Concepts...

Career education is built upon a number of concepts. First, a purpose for career education is to establish a relationship between education and work - whether that work is for the purpose of earning a living, or whether it is in service to one's nome, one's family, one's community, or one's self. Second, career education takes place at all levels of education and allows for decisions at various stages, including new decisions in early or mid-career. Third, it provides for an understanding of the relationship between a career and one's lifestyle.

To carry out these concepts in the classroom may require some changing of values and setting of new climates for instruction. However, it does not require a complete restructuring of the schools. Many activities currently underway in our schools contribute to meaningful careers. Career education requires the blending of ideas from both academic and vocational education, and to be successful it must permeate all of the school programs.

The Background...

The Texas Education Agency has adopted career education as a high priority for Texas schools. Although several divisions of the Agency are involved in the implementation of career education, the activities described in this paper are being developed by the Assessment in Career Education Steering Committee of the Agency in cooperation with a special project called Partners in Career Education, sponsored jointly by the Dallas-Fort Worth School Districts and Education Service Centers X and XI.

The activities that have occurred to date have produced operational definitions for career education called "basic learner outcomes." Now, work is underway to use these learner outcomes as the building blocks for a measurement and diagnostic system which can support instruction in career education. The parts of this system will be described briefly. But, first let's take a look at how the basic learner outcomes came into being.

A statewide survey was conducted based on the question, "What should an individual look like when he or she is 17 years old and has become adequately developed in terms of career education?" To prepare for this survey, curriculum literature on career education was reviewed,

career education projects both in Texas and other states were visited, and work-group conferences with students, parents, educators, and representatives from business and industry were held. Through these efforts a list was compiled of 279 student characteristics that could be developed through career education. These student behaviors or characteristics, called "student outcomes," were submitted to students, parents, educators, business/industry representatives, and others for review. Approximately 6,000 individuals were asked to rate these outcomes as either "basic" or "desirable" for all 17-year-olds, or inappropriate for development in the schools.

From these 279 outcomes, 177 were identified as "basic." The remainder of the outcomes included in the validation survey were rated as "desirable." None of the learner outcomes were found to be "inappropriate" in the overall rankings.

Outcomes cover all facets of career education but are not all inclusive. Career education activities in schools may go beyond what is covered in the outcomes, but every effort should be made to ensure that as many of the basic outcomes as possible are mastered by Texas students.

The Measurement System...

In order to determine the extent to which individual students and groups of students have mastered these basic learner outcomes, a cooperative effort is underway to develop sets of measurement instruments.

Principles for development - First, the measurement instruments should be useful for individual student diagnosis and for instructional plannning by teachers. They should also provide useful information for needs assessment for campus, school district, regional and state planners.

Second, the potential users, Texas students and educators, should be involved at each step of development. Their ideas and critical review are necessary to insure a quality product.

Third, since the career education learner outcomes are intended as objective statements that describe what a student should be able to do, the instruments should measure a student's mastery of the outcomes.

This approach should permit better diagnostic information for the student and teacher. Therefore, the measurement instruments are planned to be "criterion-reference," or "objective-based."

Fourth, the system is intended for measurement use at the secondary level. Although students begin to learn concepts relating to the learner outcomes at an early age, in general, it is the expectation that many outcomes will be mastered only after the student has reached a certain level of knowledge and/or maturity.

Fifth, the system will be tailor-made to measure the Career Education learner outcomes for Texas students. The Texas Education Agency and the Partners in Career Education project have engaged the services of a commerical test builder, Westinghouse Learning Corporation. The measurement system which results will be the property of the State of Texas. This approach will provide the most useful measurement capability possible for the cost.

Development Steps - Items have been written and have been reviewed by Texas educators and students to determine the item readability and relevance. These items are written as potential measures of 77 outcomes in the following nine categories:

I.	Career Planning and Decision Making
II.	Career Information
III.	Job Acquisition and Retention
IV.	Attitudes and Appreciation for Career Success
V.	Skills in Human Relationships for Careers
VI.	Self-investigation and Evaluation for Career Success
VII.	Person/Work/Societal Responsibilities
VIII.	Economic Factors Influencing Career Opportunity
IX.	Education/Career Opportunity Relationships

The times have now been arranged into two levels of pilot instruments designed for students in grades seven through eleven. The purpose of this pilot testing is to determine if the items are adequate measures of outcomes, to see if the directions for administration are understandable by teachers and students, and to find out how best to score the instruments and report results to students and teachers. Based on this information, the measurement system will be completed, and is expected to be available for use by schools in the fall of 1975.

Division of Program Planning
and Needs Assessment
Texas Education Agency
February 27, 1975

THE MEASUREMENT INSTRUMENTS

The career education measurement system now being constructed is based upon seventy-seven (77) learner outcomes identified by a cross-section of Texas citizenry as basic for seventeen year olds. The total system includes twenty-two (22) different test booklets. These booklets have been administered to Texas students in grades seven through eleven representing a sampling of public schools from across the state.

It is emphasized that these instruments are in the developmental stage. Modifications and revisions of the instruments are expected to result from analysis of the data accumulated during the recently completed student testing cycle.

One of the twenty-two developmental test booklets is included for review. It contains test items designed to measure elements of four learner outcomes contained in Category VIII of the Basic Learner Outcomes for Career Education. These outcomes are:

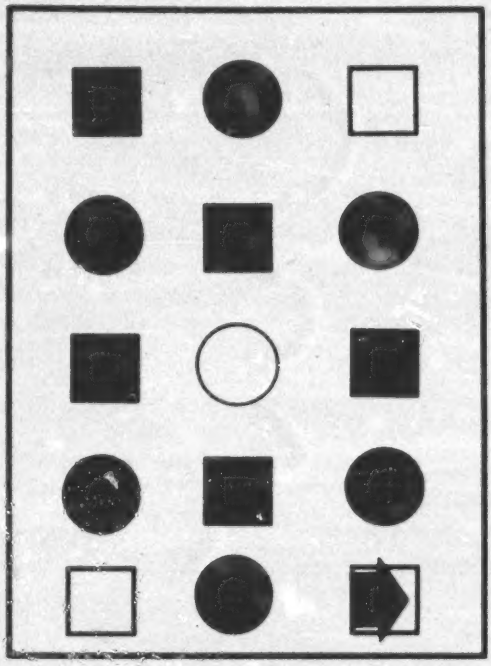
8:02 - The student should realize that changes in technology will affect his work and lifestyle.

8:08 - The student should understand what interest is and why it is a necessary charge for using other people's money.

8:10 - The student should understand that wages are what someone is paid for his time and effort.

8:16 - The student should understand that it takes resources such as labor and/or materials to produce goods and services.

Booklet: 81a



ECONOMIC FACTORS INFLUENCING CAREER OPPORTUNITY

DEVELOPMENTAL EDITION

Texas Career Education Series

Prepared by Westinghouse Learning Corporation

for

Partners in Career Education
and the
Texas Education Agency

STUDENT NAME _____

Directions for Marking Your Answers

I. Some of the questions in this booklet are followed by a set of answers from which you should choose only ONE answer. Read each of these questions carefully and choose the answer you think is correct. ON YOUR ANSWER SHEET, darken the letter that matches the answer you chose.

Now read the sample question below and notice how the answer has been marked on your Answer Sheet.

SAMPLE X: In your Test Booklet the item would look like this:

1. Which city is the capital of the United States?

(A) New York City
(B) Philadelphia
(C) Washington, D.C.
(D) Arlington

"(C)" is the correct answer. On the Answer Sheet, the "(C)" space is darkened. Notice that the mark is dark and completely fills the space.

Only ONE response should be marked for each of these kinds of questions.

II. Some of the questions in this booklet have several parts that require you to darken either an (A) or a (B). Read each of these items carefully and decide whether (A) or (B) is correct for each part. Then ON YOUR ANSWER SHEET darken either the (A) or (B), whichever you feel is correct.

Now read the sample question below and notice how the answers have been marked on your Answer Sheet.

SAMPLE Y: In your Test Booklet the item would look like this:

1. On your Answer Sheet, darken (A) for those things which are flowers. Darken (B) for the others.

(A)	(B)	a. tulip
(A)	(B)	b. car
(A)	(B)	c. rose

a and c are flowers so (A) is darkened on the Answer Sheet for those parts. (B) is darkened for b. Notice that the marks are dark and completely fill in the space.

Darken either (A) or (B) for each part of this kind of question. Remember to make a dark mark that fills the space.

Use a pencil. Do not use a ballpoint pen. If you change your answer, please erase your first answer completely.

1. Choose the best meaning for the word "technology."

   (A) substitutes mechanical labor for all human labor
   (B) new knowledge and/or applied scientific knowledge
   (C) always uses a lot of machinery

2. Which ONE of the following would be an example of new technology?

   (A) the discovery of more oil
   (B) the building of new cars
   (C) the production of cars which do not use gasoline for fuel

3. It takes less time to build an automobile today than it did when the first automobile was built. Which ONE of the following is the main reason for the increased speed in car production?

   (A) People work faster today than before.
   (B) Many cars are produced on assembly lines.
   (C) More people want cars today than ever before.
   (D) Cars have fewer parts to put together now.

4. The application of scientific knowledge and methods to the production of goods and services in a society is called

   (A) technology.
   (B) work improvement.
   (C) job training.
   (D) job reduction.

5. The following statements name some changes that have occurred in people's life-styles since 1900. On your Answer Sheet, darken (A) for those statements that describe ways that people's life-styles have been changed. Darken (B) for those which do not.

(A) (B) a. Fresh fruits and vegetables are now available throughout the entire country no matter what the season.

(A) (B) b. The general public is now able to learn news of the world more quickly.

(A) (B) c. The number of companies producing recreational products has decreased significantly.

(A) (B) d. People can change where they live and work more often.

(A) (B) e. People have more time for pleasure and learning.

6. With new machines and computers changing routine jobs, some assembly line and office workers may be fearful of

(A) overproduction of goods.
(B) losing their jobs.
(C) increase in cost of goods.
(D) longer working hours.

7. Lynn Rickert works in the patching department of the Classic Carpet Company. Lynn has often worked as many as forty-eight hours per week and has had very little time to spend with friends. Recently the company's new equipment reduced job time. Lynn now works only thirty-two hours per week.

How will Lynn's life-style probably be affected by this use of a technological improvement?

(A) Lynn will have more fringe benefits.
(B) Lynn will have a longer paid vacation.
(C) Lynn will move into an apartment nearer to the company.
(D) Lynn will have more leisure time.

8. Frank and Rita L. decided to buy a new sofa for their house. They found one for $200.00 but they did not have enough cash to buy it. The salesman told them that they could purchase the sofa on a time payment plan by paying $20.00 a month for one year, or a total of $240.00. The extra $40.00, the fee for buying on time, is called the

(A) dividend.
(B) tax.
(C) down payment.
(D) interest.

9. Which ONE of the following is a reason why banks charge interest when they loan money?

(A) to discourage people from borrowing money
(B) to attract more bank customers
(C) to earn money for the bank
(D) to compete with loan companies

10. Which type of interest charge would usually be the one used by a credit union?

(A) a revolving charge account
(B) simple interest charged monthly on the unpaid balance
(C) compound interest figured monthly on the total loan
(D) a discount for payment in cash

11. Interest is

(A) the amount charged by a lender for the use of his money.
(B) the extra amount a seller charges for scarce goods.
(C) the amount charged for the use of a bank checking account.

12. David always saved his money. He had $250.00 in the bank. Kenny had no money saved. Kenny asked David if he could borrow $50.00 to buy a share in a racing cart with some friends. David agreed but asked Kenny to pay him five percent interest. Kenny said, "Why do I have to pay you interest? You know I'll pay the money back."

Which ONE of the statements below is the BEST reason for David's charging interest on the loan?

(A) "It is good business practice."
(B) "I'll lose the use of my money while you have it."
(C) "I'm not sure I trust you to repay the debt."
(D) "I want to make money from you so I can be rich someday."

13. Which ONE of the following is the BEST reason why many companies choose to pay salesmen on the basis of how much of the company's product they sell?

(A) Such pay will not show on the company's records.

(B) The salesmen will make more money if they are paid that way.

(C) The salesmen will sell more of the product if they are paid that way.

(D) The salesmen will not have to be paid any fringe benefits.

14. Which ONE of the following is the BEST reason why a pilot is paid higher wages than a flight attendant?

(A) A pilot's job requires more money for traveling expenses.

(B) A pilot works more hours per month than a flight attendant.

(C) A pilot is paid more because he is a man.

(D) A pilot has greater responsibility for the safety of the passengers.

15. Which ONE of the following BEST defines wages?

(A) Wages are what a person is paid for his or her time and effort.

(B) Wages are what a property owner receives for the use of his/her property.

(C) Wages are the profits from owning shares of stock in a company.

(D) Wages are the part of a person's salary that is deducted for government taxes.

16. Which ONE of the following is the BEST reason why some doctors receive higher salaries than people in many other professions?

(A) Doctors are required to pay annual dues to medical associations.

(B) Doctors subscribe to medical journals and attend conventions in the health services field.

(C) All doctors work longer hours than other workers in the health services field.

(D) The demand for doctors is greater than the supply.

17. On your Answer Sheet, darken (A) for each of the jobs below for which one would usually be paid. Darken (B) for the others.

(A) (B) a. book salesperson
(A) (B) b. door-to-door United Fund collector
(A) (B) c. school janitor
(A) (B) d. boy/girl scout troup leader
(A) (B) e. mail carrier
(A) (B) f. church usher

18. Wages differ for different occupations. From the following, select the ONE occupation in which a person is probably paid in a different manner than in the other occupations.

(A) keypunch operator
(B) telephone lineman
(C) veterinarian
(D) laboratory assistant

19. Which of the following are classified as "goods," and which are "services"? On your Answer Sheet, darken (A) for those items classified as "goods." Darken (B) for those which are classified as "services."

(A)	(B)	a. ice cream
(A)	(B)	b. a sales clerk's work
(A)	(B)	c. a service station attendant changing a tire
(A)	(B)	d. gasoline
(A)	(B)	e. medicine
(A)	(B)	f. a house
(A)	(B)	g. a doctor telling someone what makes him/her sick
(A)	(B)	h. an accountant filling out a tax return
(A)	(B)	i. a bank teller cashing a check
(A)	(B)	j. a load of bricks

20. Which ONE of the following is the major factor in determining how much gasoline can be produced in the United States?

(A) the number of cars in America
(B) the amount of money spent on cars
(C) the amount of oil available for refinement
(D) the number of gas stations that are open

21. Resources become goods when they are made ready for human use. Water may be considered "goods" rather than a resource when

(A) it is flowing in a river.
(B) a dam is built to stop flooding.
(C) it is piped into your home.
(D) it is polluted by chemicals from factories.

22. The strength, skill, and intelligence of people used in the production of goods and in the sale of services is considered to be a basic economic resource. What is this basic resource called?

(A) technology
(B) capital
(C) labor
(D) raw material

23. Wood used in the production of goods is a type of basic economic resource. From the following select which type.

(A) labor
(B) raw material
(C) capital
(D) management

STUDENT INFORMATION SHEET

On your Answer Sheet there is a section labeled "STUDENT INFORMATION," columns 3 through 9. Each column of numbered ovals corresponds to a question on this page. Read each question, 3 through 9, and darken the oval that matches the number of your response in the appropriate column on your Answer Sheet.

3. To which group do you belong?

   1. Mexican-American
   2. Black
   3. Anglo
   4. American Indian
   5. Oriental
   6. Other

4. Which language is spoken in your home?

   1. Spanish
   2. German
   3. Czech
   4. French
   5. Chinese
   6. Italian
   7. Polish
   8. English
   9. Other

5. Outside of school, how long do you usually watch TV on a school day?

   1. None
   2. 1 or 2 hours
   3. 3 or 4 hours
   4. 5 or 6 hours
   5. More than 6 hours

6. How many books do you have in your home?

   1. Few
   2. Many

7. Do you have encyclopedias in your home?

   1. Yes
   2. No

8. Does your family receive a daily newspaper?

   1. Yes
   2. No

9. Does your family receive magazines through the mail?

   1. Yes
   2. No

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PROCESSES AND SYSTEM ELEMENTS

The Texas Education Agency has funded the Partners in Career Education project to work cooperatively with its sponsors and various divisions of the Agency to develop a total learning system for career education. In simplest terms, the following major processes are involved in the development of the system.

Process	System Element
Identification of operational definitions of career education; state-wide validation of the profile of a seventeen year-old	Basic Learner Outcomes for Career Education
Design and validation of measurement system: state-wide tryout and field test of instruments, manuals, and interpretive guides	Multi-level measurement and diagnostic system
Distribution of basic learner outcomes by grade level and subject area	Career education matrix of Basic Learner Outcomes
Continuous compilation of classroom teachers' suggestions for fusing career education concepts and curriculum content	Catalog of learner activities
Evaluation of various staff development procedures for writing curriculum modules	Staff development guide

MATRIX OF LEARNER OUTCOMES

Purpose

The matrix provides a means of organizing the career education learner outcomes for Texas students into a scope and sequence that is flexible, concise, understandable and based upon identified local needs. It is a working document that will continue to be re-shaped by additional inputs from individuals, professional groups and the literature. It will be used as a framework for continued development of additional learner activities.

Content and Construction

The matrix suggests grade levels and subject areas deemed most appropriate for each outcome. Placement of outcomes by grade level and subject areas resulted from a review of literature and consultation with many representatives of the educational community. A search of published materials yielded an excess of 30,000 references relating to career education objectives and classroom activities. The references were indexed and reviewed during the construction of the matrix. Educators consulted had demonstrated expertise in the following areas:

Consultant Groups:

- Human Growth and Development
- Elementary Education
- Secondary Education
- Occupational and Technical Education
- Special Education
- Guidance and Counseling
- Career Education

PARTNERS IN CAREER EDUCATION
DISTRIBUTION OF THE 177 BASIC LEARNER OUTCOMES
BY
SUBJECT AREA AND GRADE LEVEL

SUBJECT

GRADE	Social Studies	Language Arts/ English	Mathematics	Health	Science	Physical Education	Art	Music	Vocational Education	TOTAL
K	13	17	7	5	5	10	8	N/A	N/A	65
1	15	19	8	5	5	10	10	N/A	N/A	72
2	18	20	10	5	6	11	12	N/A	N/A	82
3	24	21	17	7	10	12	16	N/A	N/A	107
4	28	28	29	14	17	17	16	1	N/A	150
5	31	30	30	17	17	20	17	1	N/A	163
6	38	33	30	17	18	21	15	1	N/A	173
7	46	38	31	11	14	27	9	N/A	73*	176
8	51	45	29	1	11	31	5	N/A	123*	173
9	45	38	25	N/A	9	28	N/A	N/A	125*	145
10	43	36	21	N/A	9	21	N/A	N/A	115*	130
11	40	32	15	N/A	9	19	N/A	N/A	102*	115
12	37	30	15	N/A	8	17	N/A	N/A	98*	107

*Denotes Duplicate Recommendation

LEARNER OUTCOME 8:02

The student should realize that changes in technology will affect his work and lifestyle.

Recommended Subjects: Science and Vocational Education

Other Suggested Subjects: (Listed Alphabetically)
English
Social Studies

Recommended Grade Levels

SAMPLE

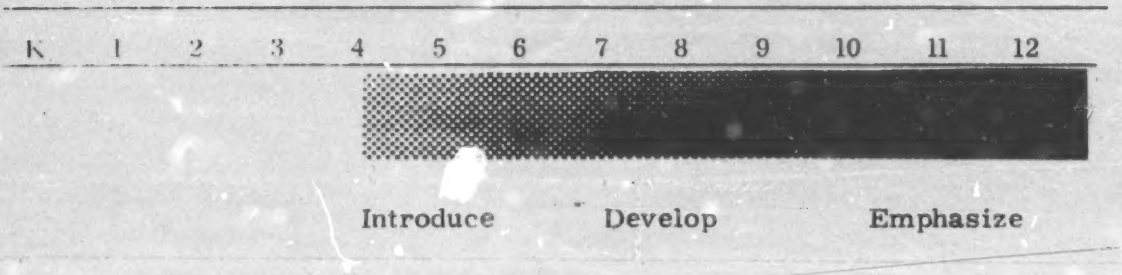
LEARNER OUTCOME 8:08

The student should understand what interest is and why it is a necessary charge for using other people's money.

Recommended Subject: Mathematics

Other Suggested Subject: Social Studies

Recommended Grade Levels



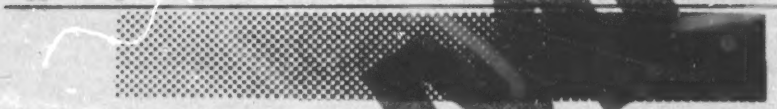
LEARNER OUTCOME 8:10

The student should understand that wages are what someone is paid for his time and effort.

Recommended Subjects: Mathematics and Vocational Education

Other Suggested Subjects: (Listed Alphabetically)
Art
Home Economics
Social Studies

Recommended Grade Levels



Introduce Develop Emphasize

SAMPLE

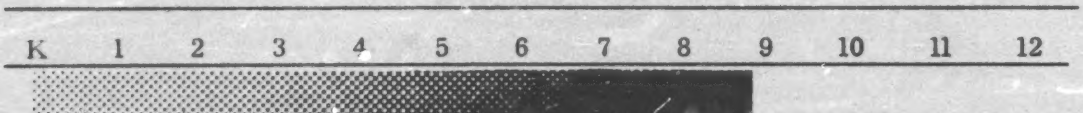
LEARNER OUTCOME 8:16

The student should understand that it takes resources such as labor and/or materials to produce goods and services.

Recommended Subject: Social Studies

Other Suggested Subjects: (Listed Alphabetically)
Art
Language Arts
Mathematics
Science

Recommended Grade Levels



Introduce Develop Emphasize

CATALOG OF LEARNER ACTIVITIES

In order to enable students to attain the learner outcomes, career education concepts must be blended into the current curriculum. The infusion process should occur at both the instructional and curricular levels.

A series of comparative workshops were conducted during the 1974-75 school year. In some workshops teachers wrote modules immediately after receiving orientation to career education. Other workshops included sessions held several weeks apart. A marked improvement in both the variety and quantity of suggestions for learner activities occurred when teachers had time for classroom implementation of ideas between writing session.

The curriculum-writing format that is included has been refined because of interaction with workshop participants. More elaborate and complicated designs were tried experimentally and resulted in less productivity of suggestions for infused activities and increased frustration of participants.

The envisioned catalog of learner activities is to be an initial collection of classroom-evolved, practical alternatives, called modules, from which a teacher can select those that appear to have potential for implementation. The catalog will not be designed as a final comprehensive listing but rather as an ever-expanding compilation that will systematically reflect the increased sophistication of teachers in implementing

the infusion process. Because the modules will be filed according to learner outcomes, the catalog will be compatible with career education programs which school systems develop using Basic Learner Outcomes for Career Education.

LEARNING MODULE
PARTNERS IN CAREER EDUCATION

SUBJECT: GRADE LEVEL:

CAREER EDUCATION
LEARNER OUTCOME: An outcome selected from the TEA booklet, Career Education Learner Outcomes, or the tentative matrix of subject and grade placement of outcomes should be listed.

PERFORMANCE OBJECTIVE: Infusion of curriculum and career education concepts should be evidenced in a behaviorally-stated objective which includes condition, performer, behavior, and level of performance. Behavior that the student is expected to exhibit following instruction is described. If teacher judgement is the criterion used to determine a satisfactory level of performance, it should be identified. Several objectives may be needed to develop a learner outcome; only one is included in each curriculum module.

Curriculum Content	Activities	Resources
What the student is expected to gain in terms of subject matter should be identified. Transferable generalizations and concepts represent highly-usable forms of learning. Main ideas are less comprehensive than generalizations but broader than isolated facts. Factual information alone, ordinarily considered to be the least valuable type of learning is sometimes the curriculum identified by teachers. The student may be expected to acquire skills and abilities from the study of the subject matter.	What the student does in order to learn is important. Alternative activities that provide for a range of students' learning styles, interests, and abilities should be included. Inclusion of an activity should be determined by checking its consistency with the curriculum content column and/or the performance objective. At least one activity should provide for behavior parallel to that described in the performance objective. One or more "mastery items" should be included in order to provide the learner practice of the desired behavior and an opportunity to assess his/her ability to perform the behavior. Activities should be included only if they are consistent with the information in the curriculum content column and/or the performance objective.	Human and non-human resources which the student employs in the described activity should be listed adjacent to the activity. If teacher-used resources are listed, they should be preceded by a capital T. Information which is considered useful to the instructor should be included under the caption, TEACHER NOTE.

EVALUATION: Expectations regarding student behavior should be stated in specific terms. In most instances the deletion of the phrase "be able to" from the performance objective will result in a concise evaluation statement.

LEARNING MODULE

PARTNERS IN CAREER EDUCATION

SUBJECT: Science

GRADE LEVEL: 8

CAREER EDUCATION
LEARNER OUTCOME: 8:02 The student should realize that changes in technology will affect his work and lifestyle.

PERFORMANCE OBJECTIVE: The student will be able to define technology as it relates to the pre-historic man.

SAMPLE

Curriculum Content	Activities	Resources
	The student will:	
Pre-historic man and fire Meaning of technology Fire provides: Means of cooking Warmth Protection	1. Locate and read information about the discovery of fire and its effect on pre-historic man.	Encyclopedias, library books, magazines, i.e., National Geographic, Vol. 15, The World Book Encyclopedia, pp. 666-674.
	2. Utilizing information gathered from activity #1, participate in a class discussion of how fire changed the life of pre-historic man.	
Pre-historic man's first tool, stone, provided: Means of preparing food Increased proficiency in hunting Method of self protection	3. Participate with a group of four students in listing advantages of pre-historic man's discovery of stone tools.	Encyclopedias
	4. Participate in a class discussion of the definition of technology as it relates to science.	

Curriculum Content	Activities	Resources
	5. Using the [illegible] definition of technology, relate [illegible] technology's components to the discovery of fire and use of stones as tools for pre-historic man.	Teacher Information: "Technology: the body of knowledge available to a civilization that is of use in fashioning implements, practicing manual arts and skills, and extracting or collecting materials." The American Heritage Dictionary of the English Language, 1973.
	6. Cite effects of technology on modern man that are similar to ways in which stone and fire discoveries affected pre-historic man.	Teacher Information: Example could include atomic energy, solar energy, computers.

SAMPLE

EVALUATION: The student will define technology as it relates to the pre-historic man.

LEARNING MODULE

PARTNERS IN CAREER EDUCATION

SUBJECT: American History GRADE LEVEL 11

CAREER EDUCATION LEARNER OUTCOME: 8:02 The student should realize that changes in technology will affect his work and lifestyle.

PERFORMANCE OBJECTIVE: The student will be able to identify some of the ways in which lifestyles have changed as a result of technology during the Industrial Period from 1760-1890 and in the Twentieth Century.

SAMPLE

Curriculum Content	Activities	Resources
The Industrial Revolution	The student will: 1. Read Chapter IV, "Creating Industrial Strength: The Working of the Factory System."	Reference text: Graff and Krout, eds. The Adventure of the American People, Rand McNally and Company, Chicago, 1973, pp. 68-74.
Meaning of technology	2. Participate in a teacher-led discussion of the meaning of technology. 3. View the film, "Inventions in America's Growth."	Resource: "Inventions in America's Growth" (1850-1910), 1956, color, 11 min., j-h, #-1203, Coronet Films. Teacher Information: Film shows how inventions such as the phonograph, telephone, electric lamp, streetcar, aeroplane and

Curriculum Content	Activities	Resources
		radio revolutionized life and influenced the establishment of cities.
	4. After viewing the film, participate in a teacher-led discussion on the technological aspects of the movie.	Teacher Information: Suggested questions for review: 1. What is technology? The way in which tools and resources are used in producing goods and services. 2. Is automation a direct result of technology? 3. Are products that result from technology all good?
Technological developments during the Industrial Period . interchangeability of parts . quick turnover of goods . utilization of unskilled labor	5. Help prepare a class list of the major technological developments that occurred during the Industrial Period.	
Effects of technological developments on society . new millionaires . increased standard of living . increased immigration to supply labor . urbanization	6. Participate in a class discussion of the effects that each of the major technological developments of the Industrial Period had upon the society as a whole.	Teacher Information: Be sure to stress the effects of technological developments on labor, leisure time activities, United States economy, and lifestyles.

SAMPLE

Curriculum Content	Activities	Resources
. increased inventions in travel and communications . large-scale industry Results of Twentieth Century technological developments . depression of the Thirties . World War II . aerospace flight . chemical farming . computer age . data overload . increased level of education	7. Discuss c[illegible] some of the major technological developments of the Twentieth Century which have affe[illegible]/her lifestyle. 8. Compare and/or contrast the [illegible]ts of present and past technolo[illegible] developments upon the society as a who[illegible]	Teacher Information: 1. How have technological developments affected your lifestyle? 2. Do technological developments affect people as a mass or individually? Give examples. 3. What future developments do you predict?

SAMPLE

EVALUATION: The student will identify some of the ways in which lifestyles have changed as a result of technology during the Industrial Period and in the Twentieth Century.

LEARNING MODULE

PARTNERS IN CAREER EDUCATION

SUBJECT: Social Studies

GRADE LEVEL: 3

CAREER EDUCATION
LEARNER OUTCOME: 8:10 The stude[illegible] should understand that wages are what someone is paid for h[illegible] time and effort.

PERFORMANCE OBJECTIVE: The student will be able to explain what wages are and to name at least three [illegible]l titles.

SAMPLE

Curriculum Content	Activities	Resources
People usually work for a living. There are many kinds of work.	The student will: 1. Participate in class discussion of what working adults in students' families do for a living. 2. Identify each parents' occupation as teacher records it on a card. 3. In response to the teacher's questions, contribute to an oral listing by the class of workers who do certain things.	Teacher Information: Print occupations on cardboard or tagboard cards. butcher Teacher asks such questions as: .Who cuts? .Which workers mix things? By considering verbs that various workers have in common, children are helped to think more in terms of contributions of workers rather than a hierarchy. Idea suggested by Dr. Robert Sylvester, U. of Oregon.

Curriculum Content	Activities	Resources
	4. With three other students, group cards according to verbs or things people do (join, cut, mix, move, etc.).	
Time and effort are part of working. Wages are paid for a worker's time and effort.	5. Write at least a paragraph describing the job of an adult in his/her family.	Pencil, paper.
	6. Participate in construction of a class mural illustrating parents' occupations.	Butcher paper, crayons, felt tip markers.
	7. After pantomiming each of the occupations discussed, ask another student to identify the occupation by choosing the correct sight word card.	Teacher-made cards
	8. Participate in class discussion of what each working parent receives for his/her time and effort: wages (money).	
	9. Share orally some of the things that are paid for with money withheld from wages.	Teacher Information: A general understanding of taxes that are withheld and living expenses is sufficient.
	10. Name some things for which families spend wages.	

SAMPLE

EVALUATION: The student will explain what wages are and name at least three occupational titles.

LEARNING MODULE

PARTNERS IN CAREER EDUCATION

SUBJECT: Mathematics

GRADE LEVEL: 8

CAREER EDUCATION LEARNER OUTCOME: 8:10 The student should be able to understand the differences between gross income, net income, and taxes.

PERFORMANCE OBJECTIVE: When given a sample of an employee's gross earnings, the student will be able to compute accurately the net income after voluntary and involuntary deductions have been subtracted.

SAMPLE

Curriculum Content	Activities	Resources
	The student will: 1. Participate in a teacher-led discussion on the meaning of wages and factors that influence amount received by worker and the payroll plans that are commonly used when computing wages.	Teacher Information: Definition of wages: Wages are monetary compensations one is paid for his/her time, talents, and/or effort. Payroll plans: a. Salary b. Hourly wage c. Piecework scale d. Commission e. Combination salary and commission Resource: Occupational Outlook Handbook
	2. When presented with a list of types of workers, identify a basis which might be used to determine the way each worker is paid.	Teacher Information: Examples of types of pay: a. Salary--teacher b. Hourly rate--grocery clerk

Curriculum Content	Activities	Resources
		c. Piecework scale--garment maker d. Commission--car salesperson e. Salary plus commission--manager of a quick-foods establishment
	3. In a small group activity, describe the advantages and disadvantages of the five payroll plans after comparing the similarities and differences of each.	
Deduction of voluntary payments: a. Health insurance b. Life insurance c. Savings plan (bonds) d. Retirement plan Deduction of involuntary payments: a. Federal income tax b. State income tax (not in Texas) c. Union dues d. Social Security	4. Participate in a teacher-led discussion of factors that can reduce one's total take-home pay or net income.	Teacher Information: When discussing the factors that can reduce one's total take-home pay, have the students define some of the terms like: 1) Taxes are payments that are deducted from a paycheck to finance the costs of governmental services. 2) Voluntary deductions are payments that are deducted from a paycheck because a worker has agreed to have them removed like savings or insurance plans. 3) Involuntary deductions are payments taken from a paycheck no matter whether the workers want to or not like taxes, social security, and some retirement plans.

SAMPLE

Curriculum Content	Activities	Resources
Computation of net income	5. When given examples of gross earnings, which also contain voluntary and involuntary deductions, accurately compute the net income for each example. 6. When called upon, identify situations in which wages may not be paid for doing a job.	Teacher Information: Examples can be given orally, placed on the chalkboard or given on a worksheet. Teacher Information: 1. Working as a volunteer fireman 2. Working as a volunteer teacher aid 3. Collecting money for charity 4. Helping in political campaigns 5. Helping around the church 6. Volunteering services as a baby sitter 7. Helping around the house 8. Helping to raise campaign funds

SAMPLE

EVALUATION: When given a sample of an employee's gross earnings, the student will accurately compute the net income after voluntary and involuntary deductions have been subtracted.